2 Sheets—Sheet 1.

H. L. WALTER & R. DURRIN.

PHOTOGRAPHIC PRINTING-FRAME.

No. 191,906. Patented June 12, 1877.

Fig. 1.



Fig. 2.

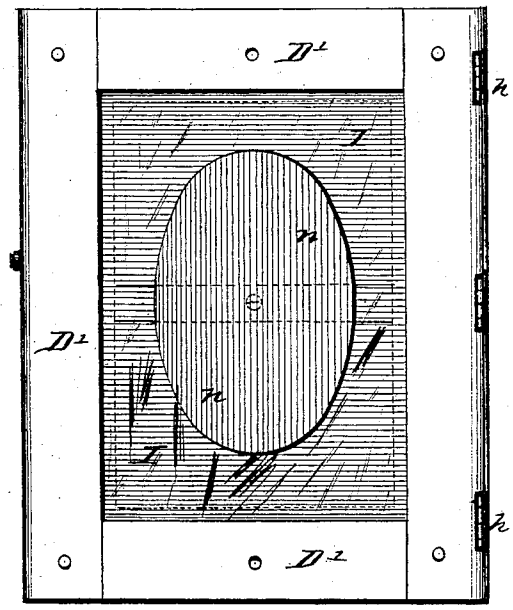
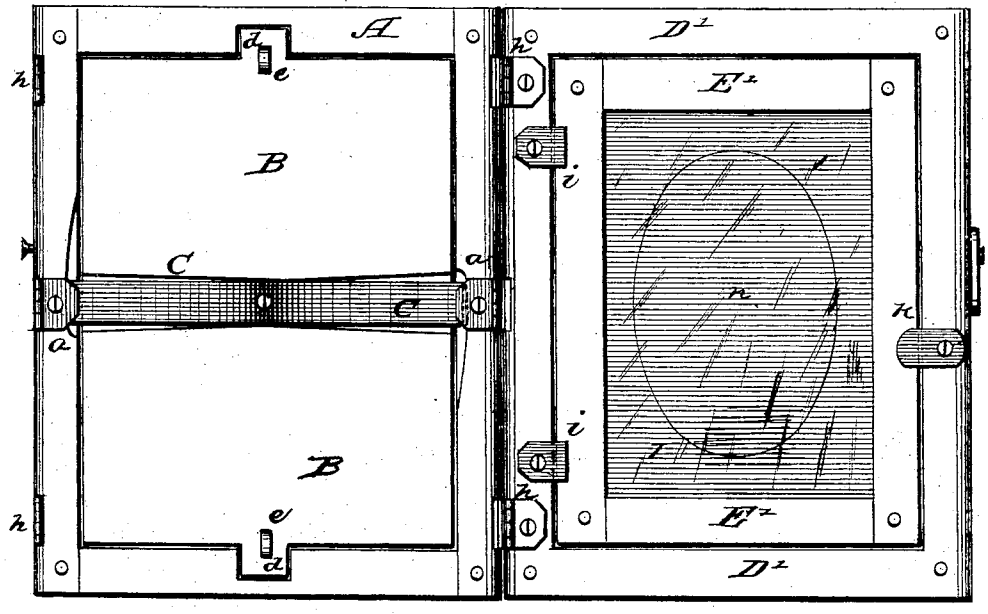


Fig. 3.



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2 Sheets—Sheet 2.

H. L. WALTER & R. DURRIN.

PHOTOGRAPHIC PRINTING-FRAME.

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Fig. 4.

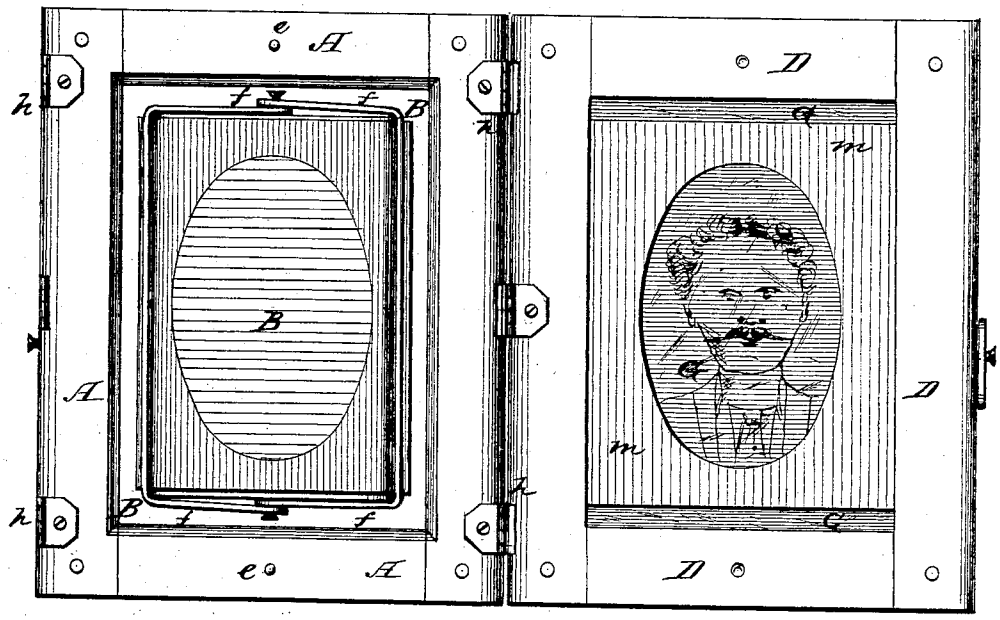


Fig. 5.

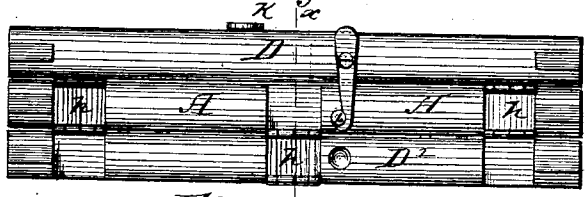


Fig. 6.

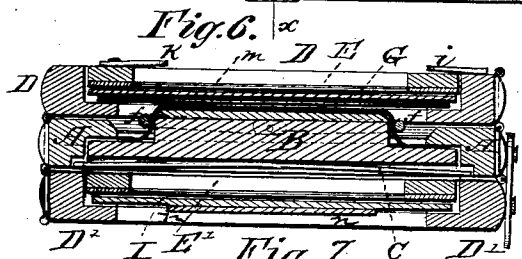
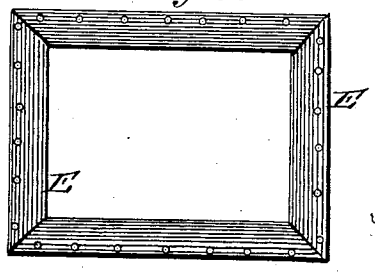


Fig. 7.



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UNITED STATES PATENT OFFICE.

HARVEY L. WALTER AND REUBEN DURRIN, OF MANCHESTER, IOWA.

IMPROVEMENT IN PHOTOGRAPHIC PRINTING-FRAMES.

Specification forming part of Letters Patent No. **191,906**, dated June 12, 1877; application filed February 22, 1877.

To all whom it may concern:

Be it known that we, HARVEY L. WALTER and REUBEN DURRIN, of Manchester, in the county of Delaware and State of Iowa, have invented certain new and useful Improvements in Photographic Printing and Printing-Frames; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

Our invention relates to photographic printing-frames; and it consists in a combined printing, tinting, and vignetting frame, as will be hereinafter more fully set forth.

In the annexed drawing, which fully illustrates our invention, Figures 1 and 2 represent front views closed, and Figs. 3 and 4 represent front views open, of our invention. Fig. 5 represents a side view closed, and Fig. 6 is a central vertical section of the same on line *x x*. Fig. 7 represents a detail view.

A represents a frame of suitable dimensions, in which the paper or tissue support B is fastened by means of a pivoted spring-bar, C, the ends whereof are held under suitable projections *a* on the frame A. The support B is formed on the back with lugs or projections, *d*, fitting in corresponding recesses in the frame, and the support has also pins *e*, to enter corresponding holes in the frame, thereby insuring the same position of the support in the frame under all circumstances.

To one side of the frame A is, by means of double-acting hinges *h h*, hinged a frame, D, for containing the negative G, which is held firmly in place by an auxiliary interior frame, E, one side whereof is placed under plates *i i*, or hinged, and the other side held by a button, *k*.

A similar frame, D′, is hinged, in like manner, to the other side of the center frame A, and this frame contains a clear glass plate, I, held in the same way by an interior frame, E′.

The sensitive-paper or tissue is held to the support B by pivoted clamps *f f*, as shown.

This combination-frame is for the photographic printing, tinting, and vignetting of carbon or other pigmented tissues, sensitive paper, or other sensitive surfaces of a flexible character, on a clamped support, in medallion, arch top, or other fancy design, by masking the background of the negative G, such mask, as shown at *m*, being adjusted to a pattern of the figure-mask imposed on the support B. This figure-mask *n* is placed on the glass plate I, and must be adjusted to the pattern above mentioned on the support B. Now, when the picture so masked is printed, the negative-frame D is folded beneath the support-frame A, and the frame D′, with the glass plate I and figure-mask *n* thereon, (which plate and figure-mask may be designated as a "tinter,") is then brought into the position formerly occupied by the negative, when the border may be subjected to the action of the light.

Ordinarily photographic prints are made in one frame, and then tinted in another, which necessitates two adjustments of the prints before the printing operation is complete. Again, in printing carbon tissue an effect of light is obtained which cannot be seen until the tissue is developed. Consequently the printing of pigmented tissues requires, by the old method, a very nice adjustment of the tissue to the top and side lines of the background mask in frames as now used; then a very nice adjustment again when placed in the tinting-frame. Hence, to produce a dozen pictures in carbon, twenty-four nice adjustments of the necessary tissues are required.

With our invention it is only necessary to adjust the negative and background mask to the pattern on the tissue-support, then adjust the figure-mask on the tinting-glass to the same pattern, when we are enabled to put the paper or tissue in position, and print and tint as many duplicates as are desired, by merely taking the picture off when finished, and supply its place with fresh material without any further adjustment of the negative, masks, &c.

It will then be seen that we print the picture and tint the borders and background on the sensitive material without removing said material from its support in the frame, and repeat the operation of producing duplicates

with no further adjustment of masks or negative other than the primary one, except in the renewal of fresh material on which to make said duplicates.

The hinges *h h* are preferably made double-acting, so as to give a three-part frame, which folds compactly, and admits of the position of the top and bottom parts being reversed. Still, if desired, single-joint hinges may be used, though the frames then would take up more room.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the support-frame A, the negative-frame D, and tinting-frame D′, whereby both the negative-frame and tinting-frame can be brought over the support-frame, for the purposes herein set forth.

2. The negative-frame D and tinting-frame D′, connected to the support-frame A by means of double-acting hinges *h h*, whereby said frames D D′ may be turned on top of or beneath the frame A, substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

HARVEY L. WALTER,
REUBEN DURRIN.

Witnesses:
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A. R. LOOMIS.